

the capacitance between the fingertip and a plurality of microelectrodes of the readout apparatus.--

Please replace the paragraph beginning at page 1, line 13, with the following rewritten paragraph:



having a thickness of only approximately 1µm is provided between the fingertip and the plural microelectrodes of the semiconductor sensor of the readout apparatus. Therefore, there is a problem in that electrostatic withstand ability is low, and insulation breakdown easily occurs due to static electricity. Furthermore, there is another problem in that the manufacturing cost is high since the apparatus needs a semiconductor sensor with a size of 1.5 cm x 1.5 cm or more to implement the readout of the fingerprint on a detecting surface with a size of approximately 1.5 cm x 1.5 cm.—

Please replace the paragraph beginning at page 3, line 9, with the following rewritten paragraph:



--Fig. 1 is a perspective view showing readout apparatus of an embodiment of the present invention. Fig. 1 shows a transparent base plate 1 for implementing a touch-and-move operation of a finger; a housing 2 for accommodating a light source, an equal magnification lens, and an image sensor; and a base plate 6 for fixing the image sensor.--

Please replace the paragraph beginning at page 3, line 14, with the following rewritten paragraph: follows:

--Fig. 2 shows the inner sectional surface A according to the present embodiment. Referring to Fig. 2, a light irradiated from a light source 3 undergoes irregular reflection on the surface of a finger 7. The reflected light forms an image on an image pickup surface of an image sensor 5 via an equal magnification lens 4. Since the image pickup surface of the image sensor 5 is of a slim rectangular shape, the surface can form only a part of the image of the fingerprint which has been formed via the equal magnification lens 4. However, when implementing a touch-and-move operation of a finger on the transparent base plate 1, the image sensor 5 can implement readout of the entire fingerprint with the image sensor 5. In the case of Fig. 2, the asperity of the fingerprint can be read based on the contrast of the reflected light, which has undergone irregular reflection, wherein the contrast is usually low. However, this configuration makes it possible to easily implement the readout of books or manuscripts. An LED is used as the light source and when the LED employs a visible light or an infrared light including a plurality of colors such as green or blue without restricting the color to a single color such as red, the LED can implement the readout of various conditions of the skin. The image

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sensor 5 is usually composed of single crystal silicon.

However, when employing an image sensor composed of amorphous silicon, this invention can employ a long image sensor or an image sensor without the equal magnification lens.--

Please replace the paragraph beginning at page 5, line 11, with the following rewritten paragraph:

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--Fig. 7 designates the base plate 6 and the image sensor 5 disposed thereon. The image sensor 5 includes an image pickup surface 8 composed of a plurality of rows of photoreceptors linearly disposed thereon. In a preferred embodiment, a length of the respective rows is more than ten times larger than a length of columns of the photoreceptors.--

Please replace the paragraph beginning at page 5, line 13, with the following rewritten paragraph:

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--As described above, the present invention can improve the electrostatic withstand ability without being affected by static electricity. Furthermore, the present invention can reduce the manufacturing cost of the fingerprint reading device, because invention applies an image sensor of a slim piece for implementing the readout of the fingerprint, and it is configured to implement touch-and-move of a finger on the transparent base plate. Still further, the present